

Amendments to the Claims:

Following is a complete listing of the claims pending in the application, as amended:

Claims 1-5 (Canceled)

6. (Currently amended) A device for piercing the stratum corneum of a body surface to form pathways through which an agent can be introduced or withdrawn, comprising a sheet having a least one opening therethrough and a plurality of blades extending downward therefrom, an adhesive anchor applied to at least one surface of said sheet, wherein said adhesive anchor helps prevent said sheet from being dislodged from said body surface, and an agent delivery or sampling device connected to said sheet and positioned to deliver or sample an agent through said opening, said agent delivery or sampling device being selected from the group consisting of an electrotransport device, a passive diffusion device, an osmotic device, and a pressure driven device, and wherein ~~each of said~~ a plurality of blades has a substantially identical and uniform configuration.

7. (Previously presented) The device of Claim 6, wherein said agent comprises a polypeptide or protein.

Claims 8-29. (Canceled)

30. (Currently amended) A device for piercing the stratum corneum of a body surface to form pathways through which an agent can be introduced or withdrawn, comprising a sheet having a least a plurality of openings therethrough, at least one of said openings having a plurality of blades located along a periphery thereof and extending downward from said sheet, an anchor for anchoring said device to said body surface, and an agent delivery or sampling device connected to said sheet and positioned to deliver or sample said agent through said opening, said agent delivery or sampling device being selected from the group consisting of an electrotransport device, a passive diffusion device, an osmotic device, and a pressure driven device, and wherein ~~each of said~~ a plurality of blades has a substantially identical and uniform configuration.

31. (Previously presented) The device of Claim 30, wherein said agent comprises a polypeptide or protein.

Claims 32-54. (Canceled)

55. (Previously presented) The device of Claim 6, further comprising at least one additional anchoring means selected from the group consisting of a projection extending out from at least one blade of said plurality of blades, a barb, at least one opening extending through said plurality of blades, each one of the plurality of blades defines essentially a plane and wherein said additional anchoring means comprises a portion of said plurality of blades being oriented at an angle of about 90° with respect to a remaining portion of said plurality of blades, and wherein each one of said plurality of blades defines essentially a plane and wherein said additional anchoring means comprises a portion of said plurality of blades being oriented at an angle within a range of about 10° to about 89° with respect to a remaining portion of said plurality of blades.

56. (Canceled).

57. (Previously presented) The device of Claim 55, wherein said projection extends out from a plane defined by at least one blade.

58. (Previously presented) A device for piercing the stratum corneum of a body surface to form pathways through which an agent can be introduced or withdrawn, comprising a sheet having at least one opening therethrough and a plurality of blades extending downward therefrom, an anchor for anchoring said device to said body surface and an agent delivery or sampling device connected to said sheet and positioned to deliver or sample said agent through said opening, said agent delivery or sampling device being selected from the group consisting of an electrotransport device, a passive diffusion device, an osmotic device, and a pressure driven device, said sheet including a prong as an additional anchor element.

59. (Previously presented) The device of Claim 6, wherein said anchor is integral with an edge of said plurality of blades and in a plane defined by said plurality of blades.

60. (Previously presented) The device of Claim 6, wherein a portion of said blades are located along a periphery of an opening through said sheet.

61. (Previously presented) The device of Claim 6, wherein a portion of said blades are located along peripheries of a plurality of openings through said sheet.

62. (Previously presented) The device of Claim 6, further comprising a plurality of second openings through said sheet.

63. (Previously presented) The device of Claim 6, wherein said device has a blade density of about 600 to about 1000 blades/cm².

64. (Previously presented) The device of Claim 6, wherein said device has a blade density of at least about 800 blades/cm².

65. (Previously presented) The device of Claim 6, wherein at least a portion of said blades has a length sufficient to pierce the stratum corneum of said body surface to a depth of at least about 25µm.

66. (Previously presented) The device of Claim 6, wherein said blades are oriented approximately perpendicular to said sheet.

67. (Previously presented) The device of Claim 6, wherein said blades are oriented at an angle in a range of about 10° to about 89° to said sheet.

68. (Previously presented) The device of Claim 6, wherein said blades are oriented at an angle in a range of about 10° to about 60° to said sheet.

69. (Previously presented) The device of Claim 6, wherein at least a portion of said blades have a thickness in a range of about 7 µm to about 100 µm.

70. (Previously presented) The device of Claim 6, wherein at least a portion of said blades have a thickness in a range of about 25 µm to about 500 µm.

71. (Previously presented) The device of Claim 6, wherein said blades are composed of a material selected from the group consisting of metals, metal alloys, glasses, ceramics and rigid polymers.

72. (Previously presented) The device of Claim 6, wherein said sheet and said blades are substantially impermeable to passage of said agent.

73. (Previously presented) The device of Claim 6, wherein said blades are thinner than said sheet.

74. (Currently amended) The device of Claim 30, further comprising ~~at least one additional anchoring means~~ an anchor selected from the group consisting of a projection extending out from at least one blade of said plurality of blades, a barb, at least one opening extending through said plurality of blades, each one of said plurality of blades defines essentially a plane and wherein said anchor comprises a portion of said plurality of blades being oriented at an angle of about 90° with respect to a remaining portion of said plurality of blades, and each one of said plurality of blades defines essentially a plane and wherein said anchor comprises a portion of said plurality of blades being oriented at an angle within a range of about 10° to about 89° with respect to a remaining portion of said plurality of blades.

75. (Canceled)

76. (Previously presented) The device of Claim 74, wherein said projection extends out from a plane defined by at least one blade.

77. (Previously presented) A device for piercing the stratum corneum of a body surface to form pathways through which an agent can be introduced or withdrawn, comprising a sheet having at least a plurality of openings therethrough, at least one of said openings having a plurality of blades located along a periphery thereof and extending downward from said sheet, an anchor for anchoring said device to said body surface, and an agent delivery or sampling device connected to said sheet and positioned to deliver or sample said agent through said opening, said agent delivery or sampling device being selected from the group consisting of an electrotransport device,

a passive diffusion device, an osmotic device, and a pressure driven device, wherein the anchor is a prong.

78. (Previously presented) The device of Claim 74, wherein said additional anchoring means is integral with an edge of said at least one blade and in a plane defined by said at least one blade.

79. (Canceled)

80. (Previously presented) The device of Claim 30, in which at least one of said plurality of openings has no blades located along a periphery thereof wherein said openings having no blades being spaced between a remaining plurality of said openings having blades.

81. (Previously presented) The device of Claim 30, wherein said device has about 600 to about 1000 blades/cm².

82. (Previously presented) The device of Claim 30, wherein said device has at least about 800 blades/cm².

83. (Previously presented) The device of Claim 30, wherein at least a portion of said blades has a length sufficient to pierce the stratum corneum of the body surface to a depth of at least about 25 μ m.

84. (Previously presented) The device of Claim 30, wherein said blades are oriented approximately perpendicular to said sheet.

85. (Previously presented) The device of Claim 30, wherein said blades are oriented at an angle in a range of about 10° to about 89° to said sheet.

86. (Previously presented) The device of Claim 30, wherein said blades are oriented at an angle in a range of about 10° to about 60° to said sheet.

87. (Previously presented) The device of Claim 30, wherein said blades have a thickness in a range of about 7 μ m to about 100 μ m.

88. (Previously presented) The device of Claim 30, wherein said blades have a thickness in a range of about 25 μm to about 50 μm .

89. (Previously presented) The device of Claim 30, wherein said blades are composed of a material selected from the group consisting of metals, metal alloys, glasses, ceramics and rigid polymers.

90. (Previously presented) The device of Claim 30, wherein said sheet and said blades are substantially impermeable to passage of said agent.

91. (Previously presented) The device of Claim 30, wherein said blades are thinner than said sheet.

92. (Canceled)

93. (Previously presented) The device of Claim 6 wherein said sheet has openings per unit area in a range of at least about 10 openings/ cm^2 to about 1000 openings/ cm^2 .

94. (Previously presented) The device of Claim 93 having a blade density per unit area in a range of about 10 blades/ cm^2 to about 1000 blades/ cm^2 .

95. (Previously presented) The device of Claim 94 wherein said blade density per unit area is in a range of about 600 blades/ cm^2 to about 1000 blades/ cm^2 .

96. (Previously presented) The device of Claim 95 wherein said blade density per unit area is in a range of about 800 blades/ cm^2 to about 1000 blades/ cm^2 .

97. (Previously presented) The device of Claim 6, having a percolation area in a range of about 0.005 to 0.05 cm^2/cm^2 of body surface.

98. (Canceled)

99. (Previously presented) The device of Claim 30 wherein said sheet has openings per unit area in a range of at least about 10 openings/ cm^2 to about 1000 openings/ cm^2 .

100. (Previously presented) The device of Claim 99 having a blade density per unit area is in a range of about 10 blades/cm² to about 1000 blades/cm².

101. (Previously presented) The device of Claim 100 wherein said blade density per unit area is in a range of about 600 blades/cm² to about 1000 blades/cm².

102. (Previously presented) The device of Claim 101 wherein said blade density per unit area is in a range of about 800 blades/cm² to about 1000 blades/cm².

103. (Previously presented) The device of Claim 102 having a percolation area is in a range of about 0.005 to 0.05 cm²/cm² of body surface.

104. (Previously presented) The device of Claim 30, wherein said anchor is an adhesive on a body contacting surface of said sheet, said adhesive further being on at least one surface of at least one of said plurality of blades.

105. (Previously presented) A device for piercing the stratum corneum of a body surface to form pathways through which an agent can be introduced or withdrawn, comprising a sheet having a least a plurality of openings therethrough, at least one of said openings having a plurality of blades located along a periphery thereof and extending downward from said sheet, an anchor for anchoring said device to said body surface, and an agent delivery or sampling device connected to said sheet and positioned to deliver or sample said agent through said opening, said agent delivery or sampling device being selected from the group consisting of an electrotransport device, a passive diffusion device, an osmotic device, and a pressure driven device, and wherein said anchor prevents said sheet from being dislodged from said body surface.

106. (Previously presented) A device for piercing the stratum corneum of a body surface to form pathways through which an agent can be introduced or withdrawn, comprising a sheet having a least a plurality of openings therethrough, at least one of said openings having a plurality of blades located along a periphery thereof and extending downward from said sheet, an anchor for anchoring said device to said body surface, and an agent delivery or sampling device connected to the sheet and positioned to deliver or sample said agent through said opening, said agent delivery or

sampling device being selected from the group consisting of an electrotransport device, a passive diffusion device, an osmotic device, and a pressure driven device; and

wherein said anchor comprises a plurality of openings extending through at least one blade.